TOWN/CITY LAND USE CODE

ARTICLE 8 – FLOODPLAIN AREAS

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8.1 Statutory Authorization

The State Legislature has, in Section 31-23-301, C.R.S., delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry.

8.2 Findings of Fact

- **A.** The flood hazard areas of the <u>Town/City</u> are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- **B.** These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

8.3 Statement of Purpose

- **A.** It is the purpose of this Article to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions to specific areas by provisions designed:
 - 1. To protect human life and health;
 - 2. To minimize expenditure of public money for costly flood control projects;
 - **3.** To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
 - **4.** To minimize prolonged business interruptions;
 - 5. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
 - 6. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
 - 7. To ensure that potential buyers are notified that property is in an area of special flood hazard; and

8. To ensure that those who occupy the areas of special flood hazards assume responsibility for their actions.

8.4 Methods of Reducing Flood Losses

- **A.** In order to accomplish its purposes, this Article includes methods and provisions for:
 - 1. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
 - **2.** Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
 - 3. Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters;
 - **4.** Controlling filling, grading, dredging and other development which may increase flood damage; and
 - 5. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

8.5 Definitions

- **A.** Unless specifically defined below, words or phrases used in this Article shall be interpreted so as to give them the meaning they have in common usage and to give this Article its most reasonable application:
 - **1.** <u>Appeal.</u> Appeal means a request for a review of the <u>Town's/City's</u> interpretation of any provision of this Article or a request for a variance.
 - **2.** <u>Area of special flood hazard.</u> Area of special flood hazard means the land in the floodplain within a community subject to a one (1) percent or greater chance of flooding in any given year.
 - 3. <u>Base flood.</u> Base flood means the flood having a one (1) percent chance of being equaled or exceeded in any given year.
 - 4. <u>Critical feature</u>. Critical feature means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

- 5. <u>Development.</u> Development means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.
- **6.** <u>Flood.</u> Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:
 - **a.** The overflow of inland or tidal waters; and/or
 - **b.** The unusual and rapid accumulation or runoff of surface waters from any sources.
- 7. <u>Flood Insurance Rate Map (FIRM).</u> Flood Insurance Rate Map (FIRM) means the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.
- **8.** <u>Flood Insurance Study.</u> Flood Insurance Study means the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.
- 9. <u>Floodway.</u> Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.
- 10. <u>Levee.</u> Levee means a manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.
- 11. <u>Levee system.</u> Levee system means a flood protection system which consists of a levee or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

- 12. <u>Lowest floor.</u> Lowest floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this Article.
- Manufactured home. Manufactured home means a structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. This term also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than one hundred eighty (180) consecutive days. This definition is for the purpose of this Article only.
- **14.** <u>Manufactured home park.</u> Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.
- Mean sea level. Mean sea level means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.
- **16.** <u>New construction.</u> New construction means structures for which the start of construction commenced on or after the effective date of this Article.
- 17. Program deficiency. Program deficiency means a defect in a community's floodplain management regulations or administrative procedures that impairs effective implementation of those floodplain management regulations or of the NFIP standards in §§ 60.3, 60.4, 60.5 or 60.6.
- 18. Remedy a violation. Remedy a violation means to bring the structure or other development into compliance with state or local floodplain management regulations, or if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the Article or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

- 19. Start of construction. Start of construction includes substantial improvement, and means the date the building permit was issued, provided that the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.
- **20.** <u>Structure.</u> Structure means a walled and roofed building or manufactured home that is principally above ground.
- 21. <u>Substantial improvement.</u> Substantial improvement means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either:
 - **a.** Before the improvement or repair is started; or
 - **b.** If the structure has been damaged and is being restored, before the damage occurred. For the purpose of this definition, *substantial improvement is* considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does <u>not</u>, however, include either:

- **a.** Any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or
- **b.** Any alteration of a structure listed on the National Register of Historic Places or the State Inventory of Historic Places.
- **Yariance.** Variance means a grant of relief from the requirements of this Article which permits construction in a manner that would otherwise be prohibited by this Article.

- Violation. Violation means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications or other evidence of compliance required in NFIP Standards § 603(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4) or (e)(5) is presumed to be in violation until such time as that documentation is provided.
- Water surface elevation. Water surface elevation means the height, in relation to the NGVD of 1929 (or other datum where specified) of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

8.6 Lands to Which this Article Applies

This Article shall apply to all areas of special flood hazards within the jurisdiction of the *Town/City*.

8.7 Basis for Establishing the Areas of Special Flood Hazard

The areas of special flood hazard identified by the Federal Emergency Management Agency is a specific engineering report entitled "*The Flood Insurance Study for the Town/City of ______*, *Colorado*," dated ______, with an accompanying Flood Insurance Rate Map, and is hereby adopted by reference and declared to be a part of this Article. The Flood Insurance Study is on file at the <u>Town/City</u> offices.

8.8 Compliance

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this Article and other applicable regulations.

8.9 Abrogation and Greater Restrictions

This Article is not intended to repeal, abrogate or impair any existing easement, covenants or deed restrictions. However, where this Article and other ordinance, easement, covenant or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

8.10 Interpretation

- **A.** In the interpretation and application of this Article, all provisions shall be:
 - 1. Considered as minimum requirements;
 - 2. Liberally construed in favor of the governing body; and
 - 3. Deemed neither to limit nor repeal any other powers granted under state statutes.

8.11 Warning and Disclaimer of Liability

The degree of flood protection required by this Article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Article does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This Article shall not create liability on the part of the *Town/City* or any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damages that result from reliance on this Article or any administrative decision lawfully made thereunder.

8.12 Establishment of Development Permit

- A. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 8.7 of this Code. Application for a development permit shall be made on forms furnished by the <u>Town/City</u> Administrator or by the <u>Town/City</u> Clerk, and may include but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials, and drainage facilities; and the location of the foregoing. Specifically, the following information is required:
 - 1. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;
 - **2.** Elevation in relation to mean sea level to which any structure has been floodproofed;

- 3. Certificate by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 8.17 A.2; and
- **4.** Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

8.13 Designation of the Local Administrator

The <u>Town/City</u> Administrator and <u>Town/City</u> Clerk, respectively, are hereby appointed to administer and implement this Article by granting or denying development permit applications in accordance with its provisions.

8.14 Duties and Responsibilities of the Local Administrator

- **A.** Duties of the <u>Town/City</u> Administrator and <u>Town/City</u> Clerk, as his or her agent, shall include but not be limited to:
 - **1.** Permit Review:
 - **a.** Review all development permits to determine that the permit requirements of this Article have been satisfied;
 - **b.** Review all development permits to determine that all necessary permits have been obtained from federal, state or local governmental agencies from which prior approval is required; and
 - c. Review all development permits to determine if the proposed development adversely affects the flood-carrying capacity of the area of special flood hazard. For purposes of this Article, *adversely affects* means that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point.
 - 2. <u>Use of Other Base Flood Data.</u> When base flood elevation data has not been provided in accordance with Section 8.7, the <u>Town/City</u> Administrator and <u>Town/City</u> Clerk, as his or her agent, as may be reasonable, shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, as criteria for requiring new construction, substantial improvements or other development in Zone A as delineated on a Flood Insurance Rate Map, in order to administer Subsections 8.17 A.1 and 2.

3. Information to be Obtained and Maintained:

- **a.** Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures.
- **b.** For all new or substantially improved floodproofed structures:
 - i. Verify and record the actual elevation (in relation to mean sea level to which the structure has been floodproofed); and
 - ii. Maintain the floodproofing certifications required in Section 8.12 A.3.
 - **iii.** Maintain for public inspection all records pertaining to the provisions of this Article.
- **c.** *Alteration of Watercourse:*
 - i. Notify adjacent communities and the Colorado Water Conservation Board prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
 - **ii.** Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- d. Interpretation of FIRM Boundaries. Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 8.15.

8.15 Variance Procedure

A. Appeal Board.

- 1. The Board of Adjustment shall hear and decide appeals and requests for variances from the requirements of this Article.
- 2. The Board of Adjustment shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the <u>Town/City</u> Administrator and/or his or her agent in the enforcement or administration of this Article.
- **3.** Those aggrieved by the decision of the Board of Adjustment may appeal such decisions to the *County* District Court, as approved in Section 31-23-307, C.R.S.
- 4. In passing upon such application, the Board of Adjustment shall consider all technical evaluations, all relevant factors, standards specified in other sections of this Article, and:
 - **a.** The danger that materials may be swept into other lands to the injury of others;
 - **b.** The danger to life and property due to flooding or erosion damage;
 - **c.** The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - **d.** The importance of the services provided by the proposed facility to the community;
 - **e.** The necessity to the facility of a waterfront location, where applicable;
 - **f.** The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - **g.** The compatibility of the proposed use with the existing and anticipated development;
 - **h.** The relationship of the proposed use to the comprehensive plan and floodplain management program for the area;
 - i. The safety of access to the property at times of flood for ordinary and emergency vehicles;

- **j.** The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
- **k.** The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, streets and bridges.
- 5. Upon consideration of the factors of Subsection 4 above and the purposes of this Article, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Article.
- 6. The <u>Town/City</u> Administrator, through his or her department, shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Emergency Management Agency.

B. Conditions for Variances.

- 1. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half (½) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base level, provided that items a through k in Subsection A.4 above have been fully considered. As the lot size increases beyond one-half (½) acre, the technical justifications required for issuing the variance increase.
- 2. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this Section.
- **3.** Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- **4.** Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- **5.** Variances shall only be issued upon:
 - **a.** A showing of good and sufficient cause;
 - **b.** A determination that failure to grant the variance would result in exceptional hardship to the applicant;

- c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety or extraordinary public expense, create nuisances, or cause fraud on or victimization of the public as identified in Subsection A.4 above or conflict with existing local laws or ordinances.
- 6. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

8.16 General Standards for Flood Hazard Reduction

A. Anchoring.

- 1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure and to withstand hydrodynamic loads.
- 2. All manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. Specific requirements may be:
 - a. Over-the-top ties shall be provided at each of the four (4) corners of the manufactured home, with two (2) additional ties per side at intermediate locations, with manufactured homes less than fifty (50) feet long requiring one (1) additional tie per side;
 - **b.** Frame ties shall be provided at each corner of the home with five (5) additional ties per side at intermediate points, with manufactured homes less than fifty (50) feet long requiring four (4) additional ties per side;
 - c. All components of the anchoring system shall be capable of carrying a force of four thousand eight hundred (4,800) pounds; and
 - **d.** Any additions to the manufactured home shall be similarly anchored.

B. Construction Materials and Methods.

- 1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- 2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- 3. For all new construction and substantial improvements, fully enclosed areas below the lowest floor automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or exceed the following minimum criteria: A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one (1) foot above grade. Openings may be equipped with screens, louvers or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

C. Utilities.

- 1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- 2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.
- **3.** On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- 4. Electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

D. Subdivision Proposals.

- 1. All subdivision proposals shall be consistent with the need to minimize flood damage.
- 2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- **3.** All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

8.17 Specific Standards

- **A.** In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 8.7 or Section 8.14 A.2, the following provisions are required:
 - 1. <u>Residential Construction.</u> New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation.
 - 2. <u>Nonresidential Construction.</u> New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement; or, together with attendant utility and sanitary facilities, shall:
 - **a.** Be floodproofed so that, below the base flood level, the structure is watertight with walls substantially impermeable to the passage of water;
 - **b.** Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
 - **c.** Provide that where a nonresidential structure is intended to be made watertight below the base flood level:

- i. A registered professional engineer or architect shall develop and/or review structural design, specifications and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the application provisions of Section 8.14 A.3.c.ii above; and
- ii. A record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the official designated by the community under Section 8.14 A.3.c.ii above.

B. Manufactured Homes.

- 1. Manufactured homes shall be anchored in accordance with Section 8.16 A.2.
- 2. All manufactured homes or those to be substantially improved shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation and is securely anchored to an adequately anchored foundation system.

8.18 - XX Reserved.

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